

## REMARKS

In the Office Action, the Examiner rejected Claims 1-2 under 35 U.S.C. 102(b) as being anticipated by Paulman (U. S. Patent No. 5,228,198). The Examiner also rejected Claims 1 and 3-4 under 35 U.S.C. 102(b) as being anticipated by Ochiai (JP 60158932A). Lastly, the Examiner rejected Claims 5-7 as being obvious in view of Zifferer (U.S. Patent Nos. 5,409,057 and 5,311,661). Applicants request reconsideration of the rejection in view of the amended claims and the following remarks.

### I. The Section 102 Rejection in View of Paulman '198

Claims 1-2 are directed to a heat exchanger assembly having heat exchanger tubing with “collapsed side wall portions extending substantially the length of said tube”. There is no disclosure of these limitations in Paulman '198. In particular, there is no disclosure of a collapsed tubing structure. While the Examiner has pointed to Figure 5 in Paulman '198, this Figure only discloses an oval shaped structure. If the Examiner was referring to Figure 6, this tubing structure is also not believed to be a collapsed structure. The tubing of Figure 6 is described as a square shape with inwardly directed ribs. Col. 7, Lns. 19-20. A collapsed structure has a substantial and significant deformity and should not be equated with a rib. See, e.g., Merriam Webster's Collegiate Dictionary, Tenth Edition, 1993 (defining collapse as “to cave or fall in” or “to fold down into a more compact shape”). As to Claim 2, this claim now requires that the collapsed structure have a generally U-shaped configuration. This feature is also not shown in Paulman '198. Accordingly, Applicants request the withdrawal of this rejection for at least these reasons.

### II. The Section 102 Rejection in View of Ochiai (JP 60158932A)

Claim 1 and dependent Claims 3-4 are again directed to a collapsed tubing structure and also including “an integral one-piece return bend portion”. The claims have also been amended to require a substantially hollow interior. None of these features are taught by cited reference. First, the small deformities illustrated in Figure 6 of Ochiai should not be equated with a collapsed tubing structure. Second, the abstract makes clear that the tube bends are welded, i.e., not formed as a one-piece element as claimed. Lastly, the claims have been amend to require a hollow interior. In contrast, Ochiai

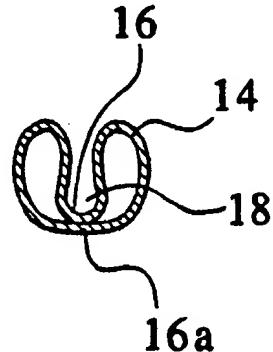
requires a stiffening plate 9 within the interior of the tubing. For at least these reasons, there is no anticipation of the referenced claims.

### **III. The Section 103 Rejection In View of Zifferer**

The Examiner has rejected Claims 5-7 in view of Zifferer (U.S. Patent Nos. 5,409,057 and 5,311,661). Claims 5 has now been amended to clarify that it is directed to a heat exchanger with a fin set. In contrast, Zifferer is directed to a heat exchanger element with no disclosure of any associated fin set. Claim 5 also requires an integral one piece return bend that is not taught by Zifferer. Lastly, applicant disagrees that Figures 9-11 of Zifferer '661 show a U-shaped configuration. The Figures reproduced below clearly show the difference between the U-shaped configuration of the present invention and the corrugated structure shown in Zifferer '661.

#### **U-Shape**

### **FIG.2A**



Corrugated Shape

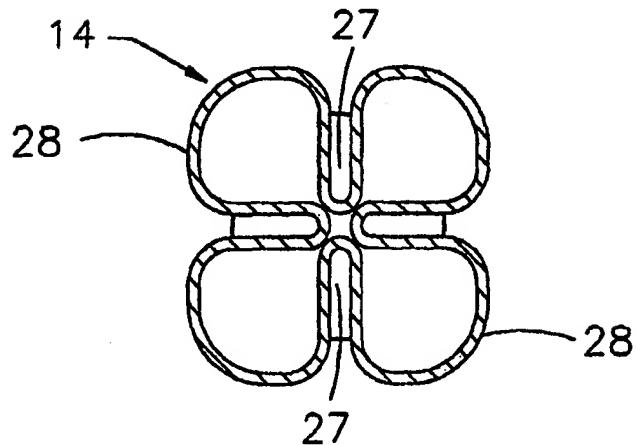


Figure 11

It should also be noted that these claims were previously rejected in view of Zifferer and that rejection was overcome. For at least these reasons, independent Claim 5 and dependent claims 6-7 should not be considered obvious.

IV. SUMMARY

The pending claims as amended are patentable. Applicants respectfully request the Examiner grant early allowance of this application. The Examiner is invited to contact the undersigned attorneys for the Applicants via telephone if such communication would expedite this application.

Respectfully submitted,

  
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